

Agricultural Literacy for Missouri

"Agriculture - All Around, Up and Down"

Chillicothe FFA

Grand River Technical School
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Area 2

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The Growth and Development of Plants

First through Third Grade Students
Fall 2000

Title

The Growth and Development of Plants

Target Audience Category

First through third grade students

Statement of Purpose or Objectives

1. Identify the best conditions for seed germination and growth.
2. Measure the height of seedlings.
3. Observe the growth and development of plants.
4. Observe the characteristics of the season - Fall & Spring

Materials Needed

- Spring flowering bulbs
- Garden plot
- Thermometer
- 2-3 week old emerging grass seedlings
- Mature grass plants - (cool season & warm season)
- Mature soybean plants
- Buckets (for seed collection)
- Student journals and pencils

Show Me Standards Addressed

- | | |
|-------------------------------|---|
| • <i>Science Standard 3</i> | characteristics and interactions of living organisms |
| • <i>Science Standard 4</i> | changes in ecosystems and interactions of organisms with their environment |
| • <i>Science Standard 8</i> | impact of science, technology and human activity on resources and the environment |
| • <i>Communication Arts 1</i> | speaking and writing standard English |
| • <i>Communication Arts 4</i> | writing formally |

Introduction/Motivation

This lesson was taught at the Litton Agri-Science Learning Center on October 18th and November 2nd. All 1st grade classes in the Chillicothe R-2 School District were invited. Chillicothe FFA members enrolled in Natural Resources conducted the activities during the field trip.

- Classroom teachers completed the following activity prior the field trip.
 - ✓ Discuss the process of growing and harvesting soybeans
 - ✓ The Harvest (poem & coloring / coloring pages)
 - ✓ Explain that farmers normally harvest soybeans with combines but students will get to harvest some by hand

Teaching/Learning Activities

Activity Area 1

- ✓ Plant spring flowering bulbs in garden plot
- ✓ Observe air temperature and soil temperature

Activity Area 2

- ✓ Observe emerging grass seedlings (planted 2 weeks prior to visit)
- ✓ Compare height of emerging seedling and mature Indiangrass
- ✓ Harvest seed from Indiangrass and Soybeans

Activity Area 3

- ✓ Write in student journals
 - ✓ Discuss sounds, smells, colors, and other organisms observed in fall regarding Indiangrass and spring flowering bulbs
- ✓ Draw a picture of soybeans and/or Indiangrass (if time?)
- ✓ Visit Pond and Outdoor Classroom - Look at livestock

Conclusion

- Seven 1st grade classes with approximately 125 students participated in the field trips
- The teacher evaluations were positive
- The 1st grade students will return to the Litton Agri-Science Learning Center next May to view the spring characteristics of the plants studied in this lesson

Appendix

1. The Harvest (poem and coloring pages)
Conservation Seeds Activities Books
Missouri Department of Conservation
Education Division
1984
2. Copy of news article that appeared in the Chillicothe Constitution Tribune on November 3, 2000.
3. Copy of student drawing.
4. Copy of student journal entries.
5. Teacher Evaluations